

## Chapter 13

### BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

13-1. Purpose. This chapter establishes controls for limiting occupational exposure to blood and other potentially infectious materials which could lead to disease or death.

13-2. Objective. To assure the safety of depot personnel that may become exposed to blood and other potentially infectious materials as the result of performing their job.

13-3. References. OSHA Standard 29 CFR 1910.1030.

13-4. Definitions.

a. Bloodborne Pathogens. Pathogenic organisms that are present in human blood and can cause disease in humans. These include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

b. Contaminated. The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

c. Exposure incident. A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

d. Infectious materials. Include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. They also include any unfixed tissue or organ other than intact skin from a human (living or dead) and human immunodeficiency virus (HIV)-containing cell or tissue cultures, organ cultures and HIV or hepatitis B (HBV)-containing culture medium or other solutions as well as blood, organs or other tissues from experimental animals infected with HIV or HBV.

e. Occupational Exposure. An exposure incident that may result from the performance of an employee's duties.

f. Regulated waste. Regulated waste include items contaminated with infectious materials, items caked with dried blood, and contaminated sharps (e.g. needles).

13-5. Exposure Determination.

a. Each organization shall evaluate their daily routines and procedures to determine where there is actual or potential exposure to blood or other potentially infectious materials. All employees whose duties include routine or reasonably anticipated tasks or procedures where there is potential for exposure to blood or other potentially infectious material shall be included under this plan. A list of job classifications which fit into this category are listed below. Other job classifications may be added as determined necessary.

b. A list of job classifications in which all employees have a reasonably anticipated threat of exposure to potentially infectious materials while in the performance of their normally assigned duties are listed below. Other job tasks may be included under this plan, if determined by their organization.

Medical Technician	GS-645
Occupational Health Physician	GS-602
Occupational Health Nurse	GS-610
Practical Nurse	GS-620
Fire Fighter/EMT	GS-081
Police Officer	GS-083
Security Guard	GS-085
Medical Equipment Repair	WG-4805
Equipment Specialist	GS-1670
Medical Equipment Repair	MOS-350
Recreation Assistant	GS-0189
Supervisor Recreation Assistant	PS-189-06
Recreation Aid - Lifeguard	PS-189-04

13-6. Universal Precautions. This method of infection control requires the employer and employee to "assume" that all human blood and specified human body fluids are infected with HIV, HBV, and other bloodborne pathogens. Where differentiation of types of body fluids is difficult or impossible, all body fluids are to be considered as potentially infectious. Universal precautions do not apply to feces, nasal secretions, sputum, saliva, sweat, tears, urine, and vomitus, unless they contain visible blood.

13-7. Engineering and Work Practice Controls.

a. All workers shall routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any patient is anticipated.

b. Hands and other skin surfaces shall be washed thoroughly with soap and water and mucous membranes flushed with water as soon as possible after skin contact with blood or other body fluids. Hands shall be washed after gloves and other personal protective equipment are removed.

c. In work areas where a reasonable likelihood of occupational exposure exists, work practice controls include restricting eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses; prohibiting mouth pipetting; preventing the storage of food and/or drink in refrigerators or other locations where blood or other potentially infectious materials are kept; providing and requiring the use of handwashing facilities; and servicing and shipping. Recapping, removing or bending needles is prohibited.

d. Although saliva has not been implicated in HIV transmission, mouthpieces, resuscitation bags, or other ventilation devices shall be available for use during emergency mouth-to-mouth resuscitation in areas where the need for resuscitation is predictable.

e. Health care workers who have exudative lesions or weeping

dermatitis shall refrain from all direct patient care and from handling patient care equipment until the condition resolves.

f. Pregnant employees are not considered to be at a greater risk of infection; however, if an employee is infected during pregnancy, the infant is also at risk of infection resulting from perinatal transmission. Because of this risk, pregnant employees should be especially familiar with and strictly adhere to precautions to minimize the risk of infection.

13-8. Personal Protective Equipment (PPE).

a. The use of PPE helps prevent occupational exposure to infectious materials. Such equipment includes, gloves, gowns, lab coats, face shields or masks and eye protection. PPE is considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach employees' work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions for the duration of time which the PPE will be used. Supervisors shall ensure employees observe the following precautions for safely handling and using PPE.

(1) Wear appropriate gloves when it can be reasonably anticipated that the employee may have contact with blood and when handling or touching contaminated items or surfaces.

(2) Wear appropriate face and eye protection such as a mask with glasses with solid side shields or a chin-length face shield when splashes, sprays, spatters, or droplets of blood or other potentially infectious materials pose a hazard to the eye, nose, or mouth.

(3) Disposable gloves shall not be washed or disinfected for reuse. They should also be replaced when visibly soiled, torn, punctured, or when their ability to function as a barrier is compromised.

(4) Utility gloves can be used for housekeeping chores involving potential blood contact and for instrument cleaning and decontamination procedures. Utility gloves may be decontaminated and reused, but should be discarded if they are peeling, cracked, or discolored, or if they have puncture, tears, or other evidence of deterioration or other ability to function as a barrier is compromised.

(5) Remove protective equipment before leaving the work area and after a garment becomes contaminated.

(6) Place used PPE in appropriately designated areas or containers when being stored, washed, decontaminated, or discarded.

b. If an employee temporarily and briefly declines to use personal protective equipment under rare and extraordinary circumstances, it must be the employee's professional judgement that in this specific instance, its use would have prevented the delivery of health care or public safety services or would have increased the hazard to the safety of the worker or co-workers. When this happens, the circumstances will be investigated and documented to determine whether changes can be instituted to prevent such

occurrences in the future.

13-9. Housekeeping. Work sites will be maintained in a clean and sanitary condition.

a. An appropriate written schedule will be kept for cleaning with the method of decontamination determined by location within the facility, types of surfaces to be cleaned, types of soil present, and the tasks and procedures being performed.

b. All equipment and working surfaces shall be properly cleaned and disinfected after contact with blood or other potentially infectious materials.

c. Decontaminate work surfaces with an appropriate disinfectant, after completion of procedures, after any spill of blood or other potentially infectious materials, and at the end of the work shift when surfaces have become contaminated since the last cleaning.

c. Always use mechanical means such as a brush and a dust pan, vacuum cleaner, tongs, cotton swabs, or forceps to pick up contaminated broken glassware; never pick up with hands even if gloves are worn.

d. Reusable items contaminated with blood or other potentially infectious material shall be decontaminated prior to washing or reprocessing.

13-10. Environmental Surfaces. Environmental surfaces such as walls, floors, and other surfaces are not associated with the transmission of infections to patients or health care workers. Therefore, extraordinary attempts to disinfect and sterilize these environmental surfaces are not necessary. However, cleaning and removal of soil shall be done routinely.

13-11. Equipment.

a. Instruments and devices that enter sterile tissue or the vascular system of any patient or through which blood flows should be sterilized before use.

c. All bins, pails, cans, and similar receptacles intended for reuse which have a potential for becoming contaminated with blood or other potentially infectious materials shall be inspected, cleaned and decontaminated on a regularly scheduled basis. They shall also be cleaned and decontaminated immediately upon visible contamination.

d. Equipment that may become contaminated with blood and other potentially infectious materials shall be checked routinely and decontaminated as necessary both inside and outside prior to servicing or shipping. If decontamination is not feasible, a readily observed label shall be attached stating which portions remain contaminated. This information will be conveyed to all affected employees, the servicing representative, and others who need to know, prior to handling or shipping.

13-12. Control and Disposal of Potentially Infectious Waste.

a. The selection of procedures for disposal of infectious waste, is

determined by the relative risk of disease transmission and application of regulations. In all cases, relevant regulations shall be consulted prior to disposal procedures and followed.

b. All infectious waste destined for disposal shall be placed in a closable, leakproof container or bag that is color coded and labeled as outlined in this document. It will be closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. If outside contamination of a container or bag occurs or is likely to occur, then a second leakproof container or bag which is closable and labeled or color coded shall be placed over the outside of the first and closed to prevent spillage or protrusion of contents during handling, storage, shipping or transport.

c. Immediately after use, sharps shall be disposed of in a closable, leakproof (on sides and bottom), puncture resistant, disposable container that is labeled and color coded according to this document.

d. When moving containers of contaminated sharps from the area of use, the containers will be closed prior to removal to prevent spillage or protrusion of contents during handling. If leakage is possible, it will be placed in a secondary container, which is closable, contains all contents, leakproof, labeled and color coded according to this document.

#### 13-13. Medical Surveillance.

a. All employees identified in this chapter shall be enrolled in a medical surveillance program. All medical evaluation procedures will be under the supervision of a licensed physician and all laboratory tests conducted by an accredited laboratory. Evaluations, procedures, vaccinations, vaccination series and post-exposure evaluation and follow up, including prophylaxis, are provided without cost to the employee. An initial medical evaluation will be given prior to job assignment and shall include a medical history, including any problems which may interfere with an employee's ability to use PPE or receive vaccinations.

b. After employees receive training as outlined in this document and within 10 working days of initial assignment, HBV vaccination shall be offered, unless the employee has had a previous HBV vaccination or unless antibody testing has revealed that the employee is immune or the vaccine is contraindicated for medical reasons. If the employee initially declines HBV vaccination, but at a later date, while still covered under this document, decides to accept the HBV vaccine, it shall be provided at that time. Should a booster dose be recommended at a future date, such booster dose shall also be provided. If an employee declines to accept vaccinations when offered, they shall indicate this by signing a declination statement.

c. HBV antibody testing shall be made available to any employee who desires such testing prior to deciding whether or not to receive HBV vaccination. If the employee is found to be immune to HBV by virtue of adequate antibody titer, the vaccine will not be offered to that employee.

d. Any employee covered by this document who has a parenteral or mucous membrane exposure to blood or other body fluids or who has a cutaneous exposure involving large amounts of blood or prolonged contact with blood, especially when the exposed skin is chapped, abraded, or afflicted with dermatitis, will have a confidential medical evaluation and follow up provided.

e. As part of a confidential medical record, the circumstances of all exposures will be recorded. Relevant information including the route of exposure, the activity in which the worker was engaged at the time of exposure, the extent to which the appropriate work practices and protective equipment were used and a description of the source exposure shall be recorded. All reporting responsibilities under federal and state laws will be performed.

#### 13-14. Exposure.

a. Once an exposure has occurred, a blood sample will be drawn after consent is obtained from the source individual unless identification is not possible. It will be tested for hepatitis- B surface antigen and antibody to human immunodeficiency virus as soon as feasible.

b. State and local laws regarding consent for testing source individuals shall be followed.

c. If consent is not obtained, establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, their blood, if available, shall be tested and the results documented.

d. Pre-test counseling, post-test counseling and referral for evaluation and treatment will be provided. Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

e. An exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained. If baseline blood is drawn, but the employee does not consent for HIV serologic testing, the sample shall be preserved for at least 90 days. If within 90 days of the exposure incident, the employee elects to have the sample tested, such testing will be done as soon as feasible.

#### 13-15. Exposure to Known Source (HBV, AIDS, HIV).

a. For an exposure from an individual found to be positive for hepatitis B, an employee who has not previously been given a hepatitis B vaccine should receive the vaccine series.

b. The depot will arrange for a single dose of hepatitis B immune globulin to be given within 7 days of an exposure. If the employee has previously received the vaccine, they will arrange that the employee be tested for antibody to hepatitis B surface antigen and be given one dose of

vaccine and one dose of immune globulin if the antibody level in the blood sample is inadequate.

c. Even if the source individual tests negative for the hepatitis B surface antigen, the worker that has been vaccinated will be provided the opportunity to receive the vaccination.

d. If source individual refuses testing or they cannot be identified, an unvaccinated employee shall receive the hepatitis B vaccine series.

e. For an exposure from an individual who has AIDS, who is found to be positive for HIV or refuses testing, the worker should be counseled regarding the risk of infection and evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure. The employee will be advised to report for medical evaluation for any acute illness that occurs within 13 weeks after the exposure.

#### 13-16. Medical Evaluation after Exposure.

a. The evaluating physician of the exposed employee should have a copy of the OSHA Standard on Occupational Exposure to Bloodborne Pathogens, 29 CFR 1910.1030, a description of the employee's duties as they relate to the exposure, a description of any PPE that was used or to be used, documentation of the route of exposure and the circumstances under which the exposure occurred, the results of blood tests when available, and all medical records relevant to the appropriate treatment of the employee.

b. The evaluating physician shall provide a written copy of his evaluation for the employee's health records. A copy will also be provided to the employee within 15 days after the evaluation. This written opinion shall be limited to the following information:

(1) The physician's recommended limitation on the employee's use of personal protective clothing or equipment and his ability to receive vaccination, and if employee has received such vaccination.

(2) A statement that the employee has been informed of the results of his evaluation and has been told of any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

(3) The written opinion will not reveal specific findings or diagnoses which are unrelated to the employee's ability to wear protective clothing or equipment or receive vaccination. Such findings and diagnoses shall remain confidential.

c. Workers with impaired immune systems resulting from HIV infection or other causes are at an increased risk of acquiring or experiencing serious complications of infectious disease. Of particular concern is the risk of severe infection following exposure to patients with infectious diseases that are easily transmitted if appropriate precautions are not taken. Any worker with an impaired immune system should be counseled about the potential risk associated with taking care of patients with any

transmissible infection and should continue to follow recommendations for infection control to minimize risk to other infectious agents.

13-17. Marking and Identification. Warning labels shall be affixed to containers of infectious waste, refrigerators and freezers containing blood or other potentially infectious material, or other containers used to store or transport blood or other potentially infectious materials. The labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in contrasting colors, using the accepted biohazard label. The label shall either be an integral part of the container or shall be affixed as closely as safely possible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal. Red bags or red containers may be substituted for labels on containers of infectious waste. Regulated waste that has been decontaminated need not comply.

13-18. Training.

a. Safety Office will provide assistance and guidance to Directors and Tenant Activity Chiefs in determining personnel that require Bloodborne Pathogen training.

b. Director of Business Management, Technical Development Division will:

(1) Arrange and schedule training courses.

(2) Notify depot activities of training dates and schedule attendance.

(3) Maintain training and certification records.

c. The training shall include the following criteria:

(1) All employees covered under this program shall participate in a training program at the time of their initial employment and annually thereafter at no cost to them and during duty hours.

(2) Material appropriate in content and vocabulary to the educational level, literacy, and language background of the employees shall be used.

(3) The program will contain a copy of the OSHA Standard on Occupational Exposure to Bloodborne Pathogens and an explanation of the content of the standards, including appendices.

(4) A general explanation of the epidemiology and symptoms of bloodborne diseases and their modes of transmission will be given. An explanation of the exposure control plan and means by which the employees can obtain the written plan shall be presented.

(5) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious material will be included.

(6) The use and limitations and practices that will prevent and



reduce exposure including appropriate engineering controls, work practices, and personal protective equipment will be explained.

(7) Information on the types of personal protective equipment available, proper use, locations, removal, handling, decontamination and/or disposal, and an explanation of the basis for selection of protective clothing and equipment will be discussed.

(8) Information on the appropriate actions to take and persons to contact in an emergency along with an explanation of the procedure to follow when an occupational exposure occurs, including the method of reporting the incident and the medical follow-up will be made available.

(9) Information on the medical counseling that the employer is providing for the exposed individuals along with an explanation of the signs and labels and color coding will be presented.

(10) Information on the hepatitis B vaccine, including its efficiency, safety, method of administration, benefits, and an explanation that vaccine and vaccination are offered free of charge shall be discussed.

(11) Employees will be given an opportunity for interactive questions and answers during or after the training programs. Phone numbers and points of contacts will be made available for answering questions.

13-19. Records Management. Records for each employee subject to medical surveillance under this document will be maintained for at least the duration of employment, plus 30 years. The training records shall include dates of the training sessions, summary of sessions, names and qualifications of persons conducting training, and names of all persons attending the training sessions.